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ABSTRACT

To learn more about the relationship between personality type and the writing skills of college freshmen composition students, a study was conducted to explore the hypothesis that essays written by students who were N (intuitive) preference types would be judged better in overall quality than those written by S (sensing) preference types. Subjects, 40 college students enrolled in a composition course, wrote eight essays that were routinely evaluated by an instructor after each assignment during a 10-week quarter. At the end of the quarter, students answered a six-item questionnaire pertaining to various aspects of the course. Students were also asked to complete a self-report questionnaire that classified individuals according to four major dichotomous categories, resulting in a personality type that is either extravert or introvert, sensing or intuitive, thinking or feeling, and judging or perceiving. Because of the nature, the size, and the composition of the sample on which the investigation was based, results did not support the hypothesis. Other findings did indicate, however, that (1) students judged accurately the areas in which their writing improved; (2) the area of mechanics of composition consistently proved to be the most troublesome category for all students; (3) the way to organize an essay provided the least difficulty for all students; (4) the teacher-student relationship played a prime role in affecting improvement in compositions; and (5) revision led to improved essays. (HOD)

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# A Study of the Relationship of Intuition to Performance in Freshman Composition

by

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That intuition is an important component of personality type peculiar to writers has been found in a number of studies. In MacKinnon's creativity studies (1960-1962), intuition emerged as the common denominator among individuals classified as creative types. This finding held true for both sexes and for various occupations, including writers. Also, Nichols and Holland's prediction study (1963) concerning first year performance of high aptitude college students revealed a relationship between writing achievement and the students' decided preference for "imagination and intuition over facts and careful reasoning" (p. 13). Such preference describes the N (intuitive) type personality determined by the Myers-Briggs Type Indicator that assesses also the S (sensing) type personality which prefers facts over imagination and intuition. The present study sought to gain knowledge about the relationship between intuition and the writing performance of Freshman Composition students.

## Hypothesis

The hypothesis explored was that essays written by students who were the N (intuitive) personality type would be judged better in overall quality than those written by students who were the S (sensing) personality type. It was felt that results of this investigative study might have implications for the teaching of Freshman Composition.

## Procedures and Materials

### Subjects

Forty students (thirty-nine freshmen and one senior) who comprised two sections of English 1106 at the University of Minnesota, Duluth were participants in this study. During the ten-week quarter students fulfilled the course requirement of writing eight essays, routinely evaluated by the instructor after each assignment was completed. Students had the option to revise the first five "learning" papers as an important step in the writing process that could result in a better essay and, perhaps, a higher rating. "Proof" papers (themes 6 and 7) could not be revised; the final exam was theme 8. At the end of the quarter all forty students agreed to participate in the study and answered a short six-item questionnaire pertaining to various aspects of the course. Finally they took the Myers-Briggs Type Indicator (Form G).

### Criteria for Grading

Established by the Composition Committee, Department of English, the "Criteria for Grading 1106" prescribes the minimum quality standards for Freshman Composition in the areas of Mechanics, Sentence Structure, Diction, Organization and Development, and Pre-Writing. Because English 1106 is a "Pass-No Pass" (PN) course, the instructor devised a rating system: "good" (√+), "pretty good" (√), "fair" (√-), and "unacceptable" (√°). The rating system provided quick feedback on each essay, and the instructor encouraged students to revise.

The Tally Sheet

Adapted from the "Criteria for Grading 1106," a special tally sheet was designed so that the instructor could record actual student errors on all eight compositions. Tallying recorded error incidence, pinpointed problem areas, and revealed improvement.

The Myers-Briggs Type Indicator (Form G)

When initially published by the Educational Testing Service as a tool or instrument for educators to utilize in obtaining a better understanding of the educational process, the Myers-Briggs Type Indicator (1962) represented twenty years of development in the area of personality type differences in academic aptitude and achievement. The Indicator is based on Carl Jung's personality typology: "The gist of the theory is that much apparently random variation in human behavior is actually quite orderly and consistent, being due to certain basic differences in the way people prefer to use perception and judgment" (Myers, p. 1). Hence the Indicator seeks to identify the preferred way an individual functions. Although people perceive and judge all the time, individuals tend to use and develop a preferred process. Thus the dominant force might be one of the perceptive processes, either Sensing (S) or Intuition (N), a mode of data-gathering as a basis for making decisions, that is assisted by a judging process. Conversely, the dominant force might be one of the judging processes, either Thinking (T) or Feeling (F), used in the actual decision-making, that is helped by a perceptive process.

A forced choice, self-report questionnaire which can be used empirically, the Myers-Briggs Type Indicator classifies individuals

according to four major dichotomous categories, resulting in a personality type that is either E (extravert) or I (introvert); S (sensing) or N (intuitive); T (thinking) or F (feeling); J (judging) or P (perceiving). Myers (1962) points out that type theory "accords respectful recognition to opposite kinds of people," acknowledging each preference as being valuable (p. 3). There are sixteen possible combinations of personality type (ENTJ, ISFP, etc.) each with its own distinctive characteristics. Thus it is possible to group individuals by using the information gained from combined indices or only a single index. According to Myers (1962) both approaches are valid.

Consistent with the purpose of the present study to gain knowledge about the relationship between intuition and the writing performance of Freshman Composition students only a single index was used to classify students into N (intuitive) or S (sensing) personality types. The S (sensing) type individual becomes aware, or perceives, by gathering data through his five senses. On the other hand, intuition is indirect perception by way of the unconscious "accompanied by ideas or associations that the unconscious tacks on to the perceptions coming from outside" (Myers 1962, p. 51). Thus sensing or intuiting are modes of data-gathering as the basis for making judgments and decisions. According to Myers (1962): "When people prefer sensing, they find too much of interest in the actuality around them to spend much energy listening for ideas out

of nowhere. When people prefer intuition, they are too much interested in all the possibilities that occur to them to give a lot of notice to the actualities" (pp. 51-52).

## Results

### The Myers-Briggs Type Indicator

Results of the Indicator showed that eighteen students were S (sensing) types and twenty-two were N (intuitive) types. Thus the forty students clearly divided in two groups: 45% S types and 55% N types.

### Tallying the Essays

Recording students' errors on all eight compositions led to Table 1 which shows how the S (sensing) and the N (intuitive) type groups compared on the learning essays (themes 1-5) in terms of average errors per student. Note that the rank order of errors was the same for both groups. The area of Mechanics was the most troublesome for students with spelling, then punctuation creating the most problems. The area of Sentence Structure was the next

common source of difficulty with the greatest fault occurring in run-on and fragmented sentences, then pronouns in general, and verbs overall. The area of Organization and Development created least problems for the students.

Table 1

Average Errors per Student on Learning Essays

for S and N Type Groups

| Criterion Areas | Average Errors S(18) | N(22) | Difference | Difference stated as Percent | t |
|---|---|---|---|---|---|
| Mechanics | 24.28 | 33.04 | 8.76 | 26.50 | 1.973** |
| Sen. Struc. | 8.22 | 12.23 | 4.01 | 32.79 | 2.804**** |
| Diction | 5.66 | 6.00 | .34 | 5.66 | .240 ns |
| Org.& Dev. | .11 | .76 | .65 | 85.82 | 1.987** |

t = test for significance of difference in performance between unrelated groups (S versus N type students).

ns = not statistically significant

** significant at the .05 level of confidence

****significant at the .005 level of confidence

Note that the S type group had fewer errors in each of the criterion areas than the N type group. The differences in the number of errors between the two groups were statistically significant in the areas

of Organization and Development, Sentence Structure, and Mechanics as noted in the table. However, the difference in the number of errors between the S and N types was not statistically significant (ns) in the area of Diction.

A comparison of the errors made by the N (intuitive) type students on their learning papers with the errors on their proof papers is shown in Table 2. Note that marked improvement occurred in all four criterion areas, ranging from error reduction of 88.16% for Organization and Development to 46.91% for Mechanics.

Table 2

Average Errors per Person on Learing Essays and Proof Papers for N Type Students

| Criterion Areas | Average Errors Learning | Proof | Difference | Difference stated as Percent | t |
|---|---|---|---|---|---|
| Mechanics | 33.04 | 17.54 | 15.50 | 46.91 | 4.36***** |
| Sen. Struc. | 12.23 | 3.91 | 8.32 | 68.03 | 10.27***** |
| Diction | 6.00 | 2.68 | 3.32 | 55.33 | 4.88***** |
| Org.& Dev. | .76 | .09 | .67 | 88.16 | 2.31*** |

t = test for significance of difference in performance between related samples (learning versus proof papers).

***significant at the .025 level of confidence

*****significant at the .0005 level of confidence

A comparison of the errors made by the S (sensing) type students on their learning papers with the errors on their proof papers is shown in Table 3. Note that improvement occurred in every criterion area, ranging from 100% for Organization and Development to 53.88% for Diction. While error reduction was statistically significant in three of the areas, such was not the case in the area of Organization and Development because of the extremely low error score (a miniscule .11 error per person) on the learning papers.

Table 3

Average Errors per Person on Learning Essays and Proof Papers for S Type Students

| Criterion Areas | Average Errors Learning | Proof | Difference | Difference stated as Percent | t |
|---|---|---|---|---|---|
| Mechanics | 24.28 | 10.44 | 13.83 | 57.00 | 6.32***** |
| Sen. Struc. | 8.22 | 3.11 | 5.11 | 62.16 | 6.31***** |
| Diction | 5.66 | 2.61 | 3.05 | 53.88 | 3.91**** |
| Org.& Dev. | .11 | .00 | .11 | 100.00 | 1.41 ns |

t = test for significance of difference in performance between related samples (learning versus proof papers).

ns = not statistically significant

****significant at the .005 level of confidence

*****significant at the .0005 level of confidence

As was true for the N (intuitive) group, the S (sensing) type group of students had the most errors in the area of Mechanics, then

Sentence Structure, and, last, Diction. The latter area reflected for both groups a limited vocabulary, difficulty with commonly confused words, and selection of precise words.

Table 4 deals with proof papers only (essays 6-8) and shows how the S (sensing) type students' performance compared with that of the N (intuitive) type students. Note that the rank order of remaining errors is the same for both groups: highest problem area, Mechanics; next, Sentence Structure; then, Diction; last, Organization and Development. Note that there is a statistically significant difference in the area of Mechanics only which favors the S type students.

Table 4

Average Errors on Proof Papers of S and N Type Students

| Criterion Areas | Average Errors S(18) | N(22) | Difference | Difference stated as Percent | t |
|---|---|---|---|---|---|
| Mechanics | 10.44 | 17.54 | 7.10 | 40.48 | 2.164*** |
| Sen. Struc. | 3.11 | 3.91 | .80 | 20.46 | .869 ns |
| Diction | 2.61 | 2.68 | .07 | .02 | .113 ns |
| Org.& Dev. | .00 | .09 | .09 | 100.00 | .918 ns |

t = test for significance of difference in performance between unrelated groups (S versus N type students).

ns = not statistically significant

***significant at the .025 level of confidence

The Six-Item Questionnaire

Listed below are the questions and answers to the short questionnaire:

Question 1. What do you like MOST about English 1106?

All forty students replied. Their likes fell into five clusters:

- Learning how to write and applying writing skills;
- Trying-out putting thoughts and feelings on paper;
- Having freedom to choose topics and the variety of essays;
- Having high quality instruction, encouragement, teacher availability;
- Having a friendly and intimate small class atmosphere.

Question 2. What do you like LEAST?

Again 100% of the student sample replied. Although one S (sensing) type declared, "I can't think of anything I don't like," the other thirty-nine students expressed the following negatives:

- Boring textbook;
- Too much pressure caused by deadlines;
- Too many essays;
- Entire writing process--thinking up new topics, finding a good starting point, writing rough drafts, and revising. Too time-consuming.

Question 3. As a result of English 1106, how do you rate your improvement in the following areas? (Refer to "Criteria for Grading 1106" sheet.)

I. Mechanics

II. Sentence Structure

III. Diction

IV. Organization and Development

V. Pre-Writing

Table 5 shows the average scores in the five improvement areas declared by the S (sensing) and the N (intuitive) type students. Overall they were quite similar in the way they judged their own improvement in the criterion areas.

Table 5

Self-Assessment of Improvement in Criterion Areas

Declared by S and N Type Students

| Criterion Areas | *Average Points S(18) | N(22) | Difference | Difference stated as Percent | t |
|---|---|---|---|---|---|
| Mechanics | 2.72 | 2.40 | .32 | 13.33 | ns |
| Sen. Struc. | 2.77 | 2.90 | .13 | .04 | ns |
| Diction | 2.22 | 2.36 | .14 | .06 | ns |
| Org.& Dev. | 2.94 | 3.18 | .24 | .07 | ns |
| Pre-Writing | 2.89 | 2.73 | .16 | .06 | ns |

t = test for significance of difference between unrelated groups (S versus N type students).

ns = not statistically significant

*Range of rating points used by students: 4 = highest; 1 = lowest.

Note that for the S (sensing) group, scores ranged from 2.94 for Organization and Development to 2.22 for Diction. For the N (intuitive) group, scores ranged from 3.18 for Organization and Development to 2.36 for Diction. The largest difference between the S and N type students' self-assessment was .32 in the area of Mechanics. Like the other differences, however, it was not statistically significant. Viewing the criterion areas as a whole, the rank order of points distributed by both student groups was very similar, showing a correlation of .9.

Question 4. Examine very carefully the following list. Rating in the same way as Question 3, to what do you attribute your improvement?

A. Kinds of Writing Assignments (Personal, Descriptive, Expository)
B. Correcting and Revising Themes
C. Classroom Instruction
D. Conference(s) with the Course Instructor
E. Using the Writing Lab
F. Change in Attitude Toward English and Writing
G. The Textbook: The Writing Commitment
H. Reference: English Simplified

Table 6 shows the average points on the course factors considered by the S (sensing) and N (intuitive) type students as contributors to their improvement. For the S types, scores ranged from 3.11 for Conferences with the Course Instructor to 2.00 for Using the Writing Lab. For the N types, scores ranged from 2.86 (tied) for Kinds of Writing Assignments and Classroom Instruction to 2.33 for the Textbook.

Table 6

Assessment of Course Factors Considered by S and N Type Students as Contributors to Improvement

| Factors | *Average Points S(18) | N(22) | Difference | t |
|---|---|---|---|---|
| Kinds of Writing Assignments | 3.06 | 2.86 | .20 | ns |
| Correcting & Revising Themes | 2.89 | 2.82 | .07 | ns |
| Classroom Instruction | 2.94 | 2.86 | .08 | ns |
| Conferences with Instructor | 3.11 | 2.80 (20) | .31 | ns |
| Using the Writing Lab | 2.00 (14) | 2.67 (18) | .67 | 2.31*** |
| Attitude Change Toward English & Writing | 2.18 (17) | 2.45 | .27 | ns |
| The Textbook: Writing Commitment | 2.17 | 2.33 (21) | .16 | ns |
| Reference: English Simplified | 2.94 | 2.64 | .30 | ns |

t = test for significance of difference between unrelated groups (S versus N type students).

ns = not statistically significant

***significant at the .025 level of confidence

*Range of rating points used by students: 4 = highest; 1 = lowest.

As to the strongest source of influence, the S (sensing) type group favored Conferences with the Instructor; the N (intuitive) type group most favored (tied) Classroom Instruction and the Kinds of Writing Assignments. The least helpful source declared by the S group was

Using the Writing Lab, while the N group gave least value to the Textbook. Interestingly, Using the Writing Lab was the only attributed source of influence that showed a statistically significant difference (33.5%) between the two student groups.

Question 5. Compared with the way you felt on the first day of class, how do you NOW feel about English and Writing? Check one:

. Hate

. Like

. Indifferent

At the onset of Fall Quarter students had been asked this same question. Dramatic changes occurred in the interim. Both student groups had eliminated the feeling of "hate." Overall there was a marked increase for "like," with the N (intuitive) type students showing a larger gain than the S (sensing) type students who showed a huge increase for "indifferent." As shown in Table 7, 50% of the S types and 63.6% of the N types liked English and writing by the quarter's end; the remainder felt indifferent.

Table 7

Attitude Change by S and N Type Students Toward English and Writing

| | Percent at Start | | Percent at End | | Percent of Change | |
|---|---|---|---|---|---|---|
| | S(18) | N(22) | S(18) | N(22) | S(18) | N(22) |
| Hate | 22.2 | 9.1 | 0 | 0 | -100 | -100 |
| Like | 61.1 | 40.9 | 50.0 | 63.6 | - 33.0 | + 55.5 |
| Indifferent | 16.7 | 50.0 | 50.0 | 36.3 | +139.5 | - 27.4 |

Question 6. Comments.

Only half of the students responded, eight S (sensing) types and twelve N (intuitive) types. Both mentioned:

- . the favorable effect writing had on organizing one's thoughts;
- . a better understanding of writing;
- . a changed attitude toward writing;
- . an appreciation of the instructor and the teaching method.

Expressed solely by the N (intuitive) type students were:

- . a liking for student and instructor feedback;
- . a view of revision as helpful to improvement;
- . the conviction that writing more often is probably the key to continued writing improvement.

Comparing Essays

The extended definition paper, an expository essay, was used as the basis for determining the overall quality of writing performance achieved by the S (sensing) type and the N (intuitive) type students. Table 8 shows how the instructor rated their essays upon completion of the writing assignment. While the "Criteria for Grading 1106" was taken into consideration, additional elements that had been stressed throughout the course were also taken into account during the rating process: How well did the student know his subject? Was the content both factual and logical? How well did the writer convey his message? Was it clearly understood by the audience?

Table 8

Definition Essay Ratings for S and N Type Students

| Rating Points | | Proportion of Sample S(18) | Percent | Proportion of Sample N(22) | Percent |
|---|---|---|---|---|---|
| √+ good | = 3 | 6 | 33.3 | 6 | 27.3 |
| √ pretty good | = 2 | 9 | 50.0 | 12 | 54.5 |
| √- fair | = 1 | 3 | 16.7 | 4 | 18.2 |
| √° unacceptable | = 0 | 0 | 0.0 | 0 | 0.0 |
| Average (Mean) | | (good √+) 2.167 | | (good √+) 2.090 | |
| Difference between Means = .077 ns | | | | | |

ns = not statistically significant

Table 8 shows no statistically significant difference between the performance of the S (sensing) and N (intuitive) type authors when the ratings were averaged for each group as a basis for comparison.

Revision

Even though revision of the learning essays was emphasized, only nine (50%) of the S (sensing) type group and eight (36.4%) of the N (intuitive) type group chose to do so. When the seventeen revised essays for the combined groups were compared with the

forty (total sample) unrevised or original essays, the average rating for the seventeen revised papers, as shown in Table 9, surpassed that of the forty unrevised essays by .653 (38.4%), a highly significant difference.

Table 9

Definition Essay Ratings for Revised and Unrevised Papers

| Student Sample Type | No. | Essay | Average Rating | Difference | Difference stated as Percent | t |
|---|---|---|---|---|---|---|
| N&S | 40 | Unrevised | 1.700 | | | |
| N&S | 17 | Revised | 2.353 | .653 | 38.4 | 3.999**** |
| N | 22 | Unrevised | 1.682 | | | |
| N | 8 | Revised | 2.375 | .693 | 41.2 | 2.424*** |
| S | 18 | Unrevised | 1.720 | | | |
| S | 9 | Revised | 2.330 | .610 | 35.4 | 2.328*** |
| N | 8 | Revised | 2.375 | | | |
| S | 9 | Revised | 2.330 | .045 | 1.9 | .171 ns |
| N | 22 | Unrevised | 1.682 | | | |
| S | 18 | Unrevised | 1.720 | .038 | 2.2 | .167 ns |

t = test for significance of difference between unrelated groups.

ns = not statistically significant

***significant at the .025 level of confidence

****significant at the .005 level of confidence

For the N group, when the ratings of the 8 revised and the 22 original (unrevised) papers were compared, the revised ratings were significantly higher, .693 (41.2%). For the S group, a similar comparison of the 9 revised essays with the 18 original (unrevised) ones resulted in a significant difference of .610 (35.4%) which also favored the revised essays.

There was a very minor difference between the revised essay ratings of the eight N (intuitive) and the nine S (sensing) type students, .045 (1.9%) and not significant. As for the unrevised essay ratings, the average rating difference was also very small between the entire S (sensing) group of eighteen students and the entire N (intuitive) group of twenty-two students--a difference of 2.2% and not significant.

Considering all the findings stated in Table 9 which shows that revision clearly favors substantial improvement, the original performances of both student groups produced essays that were very similar in quality.

## Discussion

That no significant qualitative difference was evident in either the original or the revised essays written by both student groups did not support the hypothesis of this study which stated that essays written by the N (intuitive) types would be judged better in overall quality than those of the S (sensing) type students. Why wasn't the hypothesis supported?

The answer may be found by looking at various aspects of the sample. First to be considered is the nature of the sample. Here a distinction must be made between the direction of an individual's basic preference (such as S or N, etc.) and the strength (number of points) of that preference, determined in the process of scoring the Myers-Briggs answer sheets. In the present study, the N's (intuitive types) were relatively "weak," and the S's (sensing types) were relatively "strong." According to the Myers-Briggs Manual (Appendix D, p. 2), the mean of 15.36 for the N group was at the 30th percentile for liberal arts college males and at the 29th percentile for Pembroke College females. The mean of 20.22 for the S group was at the 54th percentile for liberal arts college males and at the 67th percentile for Pembroke College females. Thus the N (intuitive) type students in the present study were below average and the S (sensing) types were average-to-above average in the strength of their basic preference scores when compared with students enrolled in liberal arts colleges.

Sample size is also an important consideration. After dividing the 40 students in two groups, there were only 18 S (sensing) types and 22 N (intuitive) types. Classifying them further into subcategories (such as ST, NF or ESTJ, INFP, etc.) would have reduced sample sizes even more, simultaneously limiting the opportunity to show meaningful differences between one type and another.

The participants themselves are a vital aspect of sample. In this study they represented a cross section of college freshmen, a marked difference from the National Merit Scholarship Finalists who comprised the sample in Nichols and Holland's study. Similarly,

MacKinnon's creativity studies dealt with adults engaged in creative occupations, including professional writers. Their studies showed a positive relationship between writing and N (intuitive) type individuals. Myers (1962) cautions against the expectations that all intuitives will be creative: "However important a preference for intuition may be, it is certainly not a sufficient condition for creativity. One other obvious consideration is the strength of the preference" (p. 34). All things considered, the nature, the size, and the composition of the sample provide a rationale for the lack of support for the hypothesis on which this investigation was based.

Nonetheless, a preference for intuition shows a positive relationship to achievement: the higher (strength of preference) the N score, the higher the grade. According to Myers (1962), "the preference for N . . . appear[s] to be associated with scholastic aptitude as measured by SAT" (p. 35). This held true when applied to the definition essays written by the N (intuitive) type students. The correlation between preference scores and the essay ratings assigned by the instructor was .347, almost significant at the .10 level of confidence. Correspondingly, the relationship between the S's preference scores and their essay ratings was negative (the higher the S score, the lower the grade), resulting in a correlation of .489, significant at the .01 level of confidence. In view of the relationship between strength of preference scores and grades, it appears likely that in proportion as the S (sensing)

type students in the present study had had lower preference scores and the N (intuitive) type students had had higher ones the hypothesis would have been supported.

Interestingly, both student preference types experienced problems in the same criterion areas with the rank order staying the same on both the learning essays and the proof papers: Mechanics, Sentence Structure, Diction, Organization and Development. Overall both student types showed marked and significant improvement in all areas as shown in Tables 2 and 3 which compared performance on the learning essays (themes 1-5) with performance on the proof papers (themes 6-8). Evidently learning took place.

The students' self-assessment (Table 5) of their writing improvement corresponded highly with their actual improvement. The first area to show progress was Organization and Development; next, Sentence Structure; then, Diction; lastly, Mechanics. In the area of Mechanics, the S (sensing) types improved significantly over the N (intuitive) type students as shown in Table 4.

Although it is difficult to judge the impact of student attitude on performance, a distinct change occurred in the way students felt toward English and writing (Table 7). Perhaps elimination of "hate" by all students is a result of actual achievement which may have instilled confidence and contributed to self-satisfaction. Comments gleaned from course evaluation forms tend to support this conjecture:

. The class was very rewarding to me. I learned a lot and hope to use it efficiently.

. I find myself checking sentences in classes that don't even care what the sentence structure is. This class must have helped.

. The course went over much that I had learned in high school, but it was helpful. It helped in the sense that I realized what kinds of errors I was making.

. I learned a lot by taking this class. Most of my high school English was poor and unclear. This class cleared up most of it.

Possibly some students discovered they could apply what they had learned in Freshman Composition to other courses. Such a boon may explain why more than half (63.6%) of the N (intuitive) group liked the course. On the other hand, the S (sensing) group may be more representative of those students who claimed "the course was too time-consuming, the textbook was boring, there were too many essays and too much pressure caused by deadlines." Maybe some S type individuals felt they had done the best they could or needed to, which may have cooled intense feelings to indifference. Based on the tendency of N (intuitive) type students to surpass S (sensing) type students in academic achievement, Myers (1962) hypothesizes that intuitive personality types have a greater natural interest in the area of scholastic achievement.

This may account for the S (sensing) group attributing improvement (Table 6) to Conferences with the Course Instructor as the strongest source of influence. Since the least helpful source was declared to be Using the Writing Lab, it is likely that students who are sensing types need reinforcement in the form of personal attention, encouragement, and help. Interestingly, the Writing Lab was the only attributed source of influence on improvement that showed a statistically significant difference (33.5%) between the S and N groups.

While the N (intuitive) group claimed the Textbook to be of least help, they most favored (tied) the Kinds of Writing Assignments and Classroom Instruction. Irmscher (1979, Teaching Expository Writing, p. 34), makes the point that "the single most important factor that affects improvement in the composition class is the teacher-student relationship . . . the attitudes of the teacher will be a stronger influence than any of the materials." Course evaluation forms contain corroborative comments by students. Here is a sampling:

. Overall, I feel the class really was a big help in learning to write. The text, workbook, and teacher all contributed to the learning process. I feel that the teacher was our greatest inspiration.

. I didn't look forward to taking Comp. 1106. I never did like Comp and it's still not my favorite class. However, I feel this particular course did quite a bit for me, and I'm confident it will help me in the future. Thanks for everything . . .!

. The instructor in this class was super. She was enthusiastic, willing to help you at any time. The text was boring and sometimes didn't help all that much, but was a good background reference.

. The course was worthwhile and the instructor was a firm grader, but it made me do better. This course takes up a lot of time, making it difficult to keep up in other courses.

. The course instructor did an overall outstanding job in presenting the material and helping us with our personal problems.

Correcting and Revising Themes was ranked third as a contributor to the S type students' improvement, while the N types ranked it second. Interestingly, the N (intuitive) types volunteered on the short questionnaire that revision was helpful to writing improvement and expressed the conviction that the probable key to continued improvement is to write more frequently to keep in practice.

Taking revision into account (Table 9), the average rating for the 17 (S and N) revised essays surpassed that of the 40 (entire sample) unrevised essays by .653 (38.4%), a highly significant difference. The importance of revision held true for both type groups. For the N's, when the ratings of the 8 revised essays were compared with the 22 (total group) originals, the ratings of the revised essays were significantly higher, .693 (41.2%). For the S group,

a similar comparison of the 9 revised and the 18 (total group) originals showed a significant difference of .610 (35.4%) in favor of revision. Unquestionably revision led to substantial improvement.

## Summary and Conclusions

The purpose of this study was to learn about the relationship between personality type and the writing skills of Freshman Composition students. It was felt that the findings might have implications for teaching Composition. The hypothesis explored was that essays written by students who were N (intuitive) preference types would be judged better in overall quality than those written by S (sensing) preference types.

Participants were forty students who comprised two sections of English 1106. They fulfilled the course requirement of writing eight essays which were routinely evaluated by the instructor after each assignment during the ten-week quarter.

At the end of the quarter students answered a short questionnaire pertaining to various aspects of the course. Finally they took the Myers-Briggs Type Indicator (Form G) which is based on Carl Jung's personality typology. The Indicator seeks to identify the preferred way an individual functions. Although people perceive and judge all the time, individuals tend to use and develop a preferred process. Thus the dominant personality force might be one of the perceptive processes--either Sensing (S) or Intuition (N)--a mode of data gathering as a basis for making

decisions, that is assisted by a judging process. On the other hand, the dominant force might be one of the judging processes--either Thinking (T) or Feeling (F)--used in actual decision-making, that is assisted by a perceptive process.

Appended to the present study are samples of the materials used: the short questionnaire, the "Criteria for Grading 1106," the tally sheet on which errors were recorded, and the Myers-Briggs Type Indicator (Form G).

The following conclusions appear warranted:

1. Results of this study did not support the hypothesis.
2. The nature, the size, and the composition of the sample provide a rationale for the lack of support for the hypothesis.
3. Students judged accurately the areas in which their writing improved.
4. The area of Mechanics consistently proved to be the most troublesome category for all students.
5. The way to organize an essay provided the least difficulty for all students.
6. Irmscher's claim that teacher-student relationship plays a prime role in affecting improvement in the Composition class was corroborated.
7. Revision leads to improved essays.

## Implications

The findings of this study favor placing greater emphasis on revision as an essential phase of the writing process. In view of its positive effect revision should be mandatory rather than voluntary. Also, the idea of revision needs to be expanded and clarified to mean more than changing a word, correcting a spelling error, eliminating a sentence fragment, or improving punctuation. Rather, the concept of revision should be one of reformulating or "re-visioning."

Why only seventeen out of forty students chose to revise their essays is open to speculation. Perhaps these students associated revision with potential for a better essay or they hoped to obtain a higher rating or they had the time it takes to expend extra effort. Stallard's (1974) "good student" writers (vis-a-vis writers chosen at random) spent more time on every phase of the composing process.

While students in the present study grasped most quickly the concept of form or the overall structure of an essay, the area of Sentence Structure ranked second to Mechanics in difficulty. Here sentence combining may be useful in ameliorating the problem. When students attempt to convey too many thoughts in a single sentence, breaking the ideas into separate kernels helps to sort out what doesn't belong. This also helps to develop relationships between ideas--those that can be coordinated because of equal rank, those that should be subordinated to the BIG idea, and those that should stand alone. Sentence combining can also help students

to associate proper connectors between various thoughts--those that are similar and those that are opposites. In turn, students may become more aware of audience and the importance of retaining reader interest and comprehension. A writer can't afford to lose his audience.

Throughout the quarter, the area of Mechanics was the most troublesome. That the S (sensing) type students improved significantly over the N (intuitive) type students may be related to personality differences. Characteristically, S (sensing) types "remember things that weren't relevant at the time they happened, keep track of detail, notice what ought to be attended to, and inspect" (Myers, p. 82).

Student choice of factors instrumental to their improvement may also reflect personality type differences. That the S (sensing) group declared the Writing Lab to be the least helpful source but Office Conferences with the Course Instructor as the most helpful may reveal a need for personal warmth, help, and encouragement, and negativism for electronic aids. On the other hand, the N (intuitive) group's claim that Classroom Instruction was the most helpful source may concur with Myers' hypothesis that N types have a greater <u>natural</u> interest in academic achievement.

Emig (1971) saw potential for research in the area of personality as it relates to student writers. For individuals to gain knowledge about their basic preferences for becoming aware (perceiving) and for making judgments could lead to a better understanding of self and others. (This could be helpful to instructors

as well.) Realization that the four preferences (E or I; S or N; T or F; J or P) are "divergent paths which lead to different kinds of excellence" (Myers, p. 63) might stimulate attempts to utilize processes other than the usual ones. Freshman Composition students, for instance, are expected to use various strategies for essay development. In exposition, facing facts, exploring all the angles, analyzing cause and effect, and weighing whatever variables exist exemplify different processes in perceiving and judging. As Myers points out: "Sensing types like facts, intuitives like possibilities, thinkers like logical principles, feeling types like a human angle" (p. 75).

The instructor's understanding of preference or personality types can be used to establish small groups (3-7 students) selectively. Thus students engaging in peer evaluation or prewriting activities would be exposed to various viewpoints. Such interaction could be mutually useful, fostering respect and insight into individual differences. Myers warns that "if people [sic] have no preference in common . . . they will never see eye to eye on anything . . . [but] if they have two or three preferences in common, they will both understand and support each other" (p. 81). Hence careful group selection by preference or personality type made by the instructor augurs well for productive work in small groups.

There may be advantages, too, in the instructor's knowing his own type preference. To what extent does it affect assigning grades or ratings? To what extent does it influence other aspects of teaching such as teacher-student rapport or relationships?

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